

Date: Sat, 26 Jun 93 04:30:20 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #782
To: Info-Hams

Info-Hams Digest Sat, 26 Jun 93 Volume 93 : Issue 782

Today's Topics:

 * SpaceNews 28-Jun-93 *
 2m HT
 amateur clubs in huntsville alabama
 copper tube J pole (2 msgs)
 Radio Shack 2m HT Mods and Problems
 Radio Shack HTX100 Conversion from 10 Meters to 20 Meters
 Receiver Repair Problem
 SAREX Update
 SCOM Repeater Controller Spurious Reset Help

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 25 Jun 93 20:08:19 GMT
From: news-mail-gateway@ucsd.edu
Subject: * SpaceNews 28-Jun-93 *
To: info-hams@ucsd.edu

SB NEWS @ AMSAT \$SPC0628
* SpaceNews 28-Jun-93 *

BID: \$SPC0628

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SpaceNews
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MONDAY JUNE 28, 1993

SpaceNews originates at KD2BD in Wall Township, New Jersey, USA. It is published every week and is made available for unlimited distribution.

★ STS-57/SAREX NEWS ★

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Mission: STS-57/Spacehab/EURECA-Retrieval	Orbital Alt. 287 miles
Vehicle: Endeavour/OV-105	Inclination: 28 degrees
Location: Pad 39-B	Crew Size: 6
Launch: 21-Jun-93 at 13:07:22 UTC	
Expected KSC Landing Date: 29-Jun-93	
Expected Mission Duration: 7 days/23 hours (if cryogenics allow)	

The Shuttle Amateur Radio Experiment (SAREX) is activated and fully operational on the Space Shuttle Endeavour. The initial engineering contact with W5RRR went well. Pilot Brian Duffy's (N5WQW) family were on hand at the JSC ARC during the pass. In fact, Duffy's son Shaun, KB5SIY, initiated the contact for the engineering checkout.

Two orbits later, the students at the Mitchell Elementary School in Houston had an outstanding, crystal clear contact with 11 students asking questions.

The school contact with the Lawrence Hall of Science and Malcolm-X Intermediate School had limited success today on the following orbit with 2 students asking questions. An unfavorable Shuttle attitude limited SAREX success during this pass.

SAREX and amateur radio, in general, received a big boost last week when President Clinton had a telephone conference with the STS-57 crew. During his address to the astronauts, President Clinton commended the astronauts, the SAREX team and the amateur radio community for their outstanding support to students around the world. Clinton said "I understand that later in the mission Janice (Voss) and Brian (Duffy) are going to be talking with school children around the world." He continued "But I want to tell you how much I appreciate the fact that you're making an international education project out of this mission. That's very important to me." Pilot Brian Duffy responded "Mr. President, we find that using amateur radio is an excellent way of communicating with children all around the world, and we're also able to excite them by using space and science. And letting them see space and science in action, we're able to excite them and hope they'll study harder." The President finished, "You have no idea -- you may be on this mission creating thousands of scientists for the future just by the power of your example and by this

direct communication. I think sometimes we underestimate the impact that human contact in an enormously impressive setting like this can have on children all across the world -- not only those with whom you'll talk, but millions of others who will just see it and know that it happened."

This is the fourth flight of Space Shuttle Endeavour and the 56th flight of the Space Shuttle system.

[Info via Frank H. Bauer]

* AMSAT-OSCAR-13 NEWS *

=====

The demise of Oscar-13's mode-L transmitter makes the 1993 schedules (published last November) obsolete. Thus the AO-13 command team are reviewing the best way to schedule the remaining mode-S and mode-B transponders.

1. Mode-JL was very power hungry, consuming more than mode-B and mode-S combined. In order to maintain a full schedule, we used to be obliged to operate with the Sun angle less than 30 degrees (87% illumination). We can now run comfortably at up to about 40 degrees (77%), which means we can operate Earth pointing from apogee (Alon/Alat 180/0) for 1/3rd longer periods than hitherto.

2. Logically, mode-S can now assume time previously assigned to mode-JL.

So there is scope for more comprehensive use of mode-S, and the revised schedules will reflect this.

At certain times (such as now), the attitude is relatively extreme, and the amount of useful transponder time is very restricted. So any mode-S operation is necessarily short. 10 MAs represent about 1/6 th of the available time. When the attitude is Earth pointing from apogee, such as in the 3rd quarter of 1993, the mode-S exclusive period can be longer, mode SB can be invoked for some hours, and the S-beacon exercised.

At intermediate attitudes the schedule will be intermediate too. The exact mix will be the subject to power budgets, and as yet we have no real working knowledge of the conditions free of the heavy mode-L loading. So gathering data will take a little time.

In principle we want to guarantee a minimum of 10 MAs mode-S exclusive at all times, and under optimum attitude and Sun angle conditions invoke a maximum of 30 MAs, inclusive of beacon. Mode-B operation will be in use whenever possible since it does not affect mode-B in the slightest, yet provides a useful test environment for mode-S experimenters.

Provisional plans will be released shortly.

It is worth reiterating that a 60 cm dish with a "noisy" 1.8 db noise figure down-converter is adequate for A0-13 mode-S reception, as indeed (just) is a 16 turn helix with a low noise 0.6 db NF device. This performance equates to a Gain/Temperature ratio G/T of 0.5 K⁻¹, or equivalently a Sun noise increase of about 1 db. These antennas are physically small, and will work indoors.

This opportunity to sample mode-S reception has never been bettered in amateur satellite history. Try it!

The active command stations are listed below, and constructive feedback about operations is always welcome.

Peter DB20S @ DB0FAU
James G3RUH @ GB7DDX
Graham VK5AGR @ VK5WI

The above may also be reached via Internet (callsign@amsat.org) and UO-22. Please remember to state clearly a return address.

Notes prepared on behalf of, and in total cooperation with those listed by James Miller G3RUH 1993 Jun 11 [Fri].

The latest A0-13 schedule as of 25-Jun-93 follows:

```
L QST *** A0-13 TRANSPONDER SCHEDULE *** 1993 Jun 25 ->
Mode-B : MA 0 to MA 20 !
Mode-S : MA 20 to MA 30 !<- S transponder; B trsp. is OFF
Mode-B : MA 30 to MA 256 ! Attitudes Jun 25 130/0
Mode- : MA ! (approx) Jun 30 135/0
Mode- : MA ! Jul 05 140/0
Omnis : MA 170 to MA 10 ! Jul 15 145/0
! Jul 26 150/0
```

[Info via G3RUH]

* SpaceNews NEWS *

=====

I have received many questions over the years regarding SpaceNews access through FTP via the Internet. While some FTP sites might be available that provide this service, the author is not aware of any.

Since there seems to be an interest in fetching SpaceNews across the Internet, I have decided to make SpaceNews available using the "finger"

command.

Therefore, issuing the command: `finger magliaco@pilot.njin.net` should yield the latest copy of SpaceNews. Give it a try, and if there is enough interest, I will try to keep the current issue of SpaceNews available on this system for everyone.

You may leave your comments at: `magliaco@pilot.njin.net`, or send them via any of the other paths listed below.

* AMSAT-UK NEWS *

=====

Ron, G3AAJ, reports that the AMSAT-UK Colloquium Bookings are coming in nicely and the Colloquium should be another success again this year. Papers or Resume' of Talks that people would like to have included in the Proceeding of Colloquium '93 should be sent to AMSAT-UK before 15th July 93. The address is as follows:

Colloquium '93
AMSAT-UK
London E12 5EQ
England

* THANKS! *

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Thanks to all those who sent messages of appreciation regarding SpaceNews, especially:

N1MDZ JG2PYH VY2CY KD4CIM KJ5AZ KE9MI

* FEEDBACK/INPUT WELCOMED *

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Mail to SpaceNews should be directed to the editor (John, KD2BD) via any of the following paths:

FAX : 1-908-747-7107
UUCP : ...catfish.ocpt.ccur.com!ka2qhd!kd2bd
PACKET : KD2BD @ NN2Z.NJ.USA.NA
INTERNET : kd2bd@ka2qhd.ocpt.ccur.com -or- kd2bd@amsat.org

MAIL : John A. Magliacane, KD2BD
 Department of Engineering and Technology
 Advanced Technology Center
 Brookdale Community College
 Lincroft, New Jersey 07738

U.S.A.

```
<<= SpaceNews: The first amateur newsletter read in space! -=>>
```

/EX

Date: Fri, 25 Jun 1993 03:37:06 GMT
From: usc!howland.reston.ans.net!darwin.sura.net!knuth.mtsu.edu!raider!theporch!
jackatak!root@network.UCSD.EDU
Subject: 2m HT
To: info-hams@ucsd.edu

jpw@cbis.ece.drexel.edu (Joseph P. Wetstein) writes:

```
> I would like to purchase a 2m handheld. I would like DTMF (repeater work),
> good power (5W?) and some features (memories, etc).
>
> I would like to keep the cost below $250. I have seen nice radios around,
> but they usually have more features than I need.
>
> Any advice?
```

Yep. The Icom IC-2AT...good rig. Works flawlessly. Good receiver with not too much intermod problem. And, when you get tired of hamming, it doubles as a fine hammer for banging dents from your car! ;^)

Price has held because it DOES what it says it will, has no bells nor whistles to break, and is just a fine handheld...still, within your range!

73 ES GUD LUCK
Jack

```
+-----+
| Jack GF Hill          |Voice: (615) 459-2636 -           Ham Call: W4PPT |
| P. O. Box 1685        |Modem: (615) 377-5980 -   Bicycling and SCUBA Diving |
| Brentwood, TN 37024  |Fax:   (615) 459-0038 -           Life Member - ARRL |
| root@jackatak.raider.net - "Plus ca chnagez, plus ca la meme chose" |
+-----+
```

Date: 26 Jun 93 01:09:51 GMT
From: news-mail-gateway@ucsd.edu
Subject: amateur clubs in huntsville alabama

To: info-hams@ucsd.edu

> -----

>

> Date: 25 Jun 93 13:13:03 -0600

> From: pravda.sdsc.edu!news.cerf.net!usc!howland.reston.ans.net!darwin.sura.net!
cs.utk.edu!nntp.memst.edu!cse_test@network.UCSD.EDU

> Subject: Amatuer Clubs In Huntsville, AL

> To: info-hams@ucsd.edu

>

> Does anyone know of any Amatuer Clubs in Huntsville, AL. I am going there

> pretty soon and I want to join a club there. Please leave Email on them and how

> I can get in contact with them to join.

>

> Thanks

> Greg (KD4TVF)

>

Greg,

Wasn't sure of your email address. I belong to the Huntsville Amateur Radio Club. Email me or call me, and I'll give you information.

Stan, kc4zgf

Stanley D. Boyd Business: (205)730-3135
Intergraph Corporation Fax: (205)730-3301
Mailstop: GD3005 Email: sdboyd@ingr.com
Huntsville, AL 35894-0001

Date: Fri, 25 Jun 1993 21:57:57 GMT

From: overload.lbl.gov!agate!howland.reston.ans.net!usc!elroy.jpl.nasa.gov!
swrinde!cs.utexas.edu!gerald@cc.utexas.edu!portal.austin.ibm.com!
awdprime.austin.ibm.com!miltonm@dog.ee.lbl.gov

Subject: copper tube J pole

To: info-hams@ucsd.edu

In article <C96wto.LxC@icon.rose.hp.com> greg@core.rose.hp.com (Greg Dolkas) writes:

> I, too, just built the Copper Pole. At first it worked absolutely wonderfully,
> but now I am finding that it seems very sensitive to how the feed line runs
> off from the antenna. Small changes in the position of the wire (not the feed
> point itself; how the wire hangs) make very large changes in the antenna's

> effectiveness. Apparently, my first positioning was just right. Now, of
> course, things have moved and I can't find the "sweet spot" again.

I noticed this somewhat too when I built mine (ok, not until the second time I tuned it after doing a proper soldering job). Then, while browsing an older copy of the ARRL antenna handbook, I saw where it said that the feed should be balanced (makes sense if you think about it) and about 200-600 ohms. The author in that article recommended a 4:1 stepup ballan.

Elsewhere in that book it described the wiring as:

take an *electrical* half-wavelength of coax, short both ends of braid together and connect to feed coax. Connect the center conductor to one of the two centers from the half-wave coax and attach to one side, use the other end's center conductor for the opposite phase feed. Feed both sides up a couple of inches from the bottom of the U.

I found that this circuit seemed to have a higher Q (lower bandwidth), but got rid of most of the near-field coupling to the coax feed. Now if I could just get the time to use it again :-)

Best of luck,
milton

--

Milton Miller KB5TKF miltonm@austin.ibm.com
These are my opinions and independent of any IBM might have.

Date: Fri, 25 Jun 1993 22:47:17 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!gatech!concert!news-feed-1.peachnet.edu!umn.edu!csus.edu!netcom.com!grady@network.UCSD.EDU
Subject: copper tube J pole
To: info-hams@ucsd.edu

Assuming the \$50 is not out of budget, a good antenna for multiple band work, including scanning, is the Radio Shack discone.

It is reasonable well made, portable and easily assembled and has an essentially flat SWR from 144 through 2 gigahertz.

Since the most benefit of an external antenna is just the virtue of getting it above the local obstructions, not from the gain of the antenna itself, the unity gain of the is no big deal.

You are still getting the 10+ dB gain
from just getting your antenna in the air.

--

grady@netcom.com Moby lexicons voice/fax (707) 826-7715

Date: 25 Jun 93 07:32 CDT
From: usc!cs.utexas.edu!news.uta.edu!utacfd.uta.edu!trsvax!trsvax!
rpo@network.UCSD.EDU
Subject: Radio Shack 2m HT Mods and Problems
To: info-hams@ucsd.edu

> the raad shack radio IS an old icom radio, at least it is based on the

Ha ha ha ho ho ho he he giggle...snort.

Paul Opitz, N5TPQ
Radio Shack Publications

Date: Fri, 25 Jun 93 20:51:57 GMT
From: usc!math.ohio-state.edu!darwin.sura.net!news-feed-1.peachnet.edu!concert!
rti!jbc@network.UCSD.EDU
Subject: Radio Shack HTX100 Conversion from 10 Meters to 20 Meters
To: info-hams@ucsd.edu

Has anyone converted a Radio Shack HTX100 from 10 meters to 20 meters?

Date: 26 Jun 1993 01:00:49 -0500
From: usc!cs.utexas.edu!not-for-mail@network.UCSD.EDU
Subject: Receiver Repair Problem
To: info-hams@ucsd.edu

About a year ago a voltage surge from my tape deck knocked out the right channel in my Technics receiver. I figure that it probably shouldn't be too hard to fix-- most likely a chip or other rather sensitive semi-conductor was fried. Actually, the problem corrected itself after a long period of rest. Unfortunately, when adjusting the volume one day, a static charge from my finger apparently zapped it for good.

Since the receiver is about ten years old, I'm not especially eager to spend a lot on getting it fixed. Although I'm no electronics expert, I have enough technical skill that I could fix it myself if I had a better

idea of where to start. Does anyone have any suggestions on how I might go about isolating the faulty component(s)?

Phil Calvert

=====
Bitnet: pncsppc@ncsuvox / Internet: pncsppc@ccvax1.cc.ncsu.edu

"The two most common things in the universe are hydrogen and stupidity."
--H. Ellison
=====

Date: 25 Jun 93 22:31:14 GMT
From: news-mail-gateway@ucsd.edu
Subject: SAREX Update
To: info-hams@ucsd.edu

SB SAREX @ AMSAT \$STS-57.011
SAREX Update, June 25 @ 22:30 UTC

SAREX School group operations have been on hold during the past two days due to the EURECA satellite retrieval and the spacewalk which was just completed. We still have 3 U.S. schools and 1 Australian school to complete.

Over the past 2 days, the SAREX team has heard no packet radio contacts over the mainland U.S. Prior to the sleep period yesterday, we asked for the crew to verify that the SAREX payload was configured for Robot Packet Operations. The crew response was that the packet robot was operational and that there was some packet activity earlier in the day. We have gotten a report that at least 30 packet connects have occurred; primarily over South Africa. Because of the intense activity today due to the spacewalk, we have been unable to get a clear definition of what the problem is with the packet robot. We will be working this problem as soon as the crew wakes up at 4/17:00. We will keep you informed.

If you are able to copy the packet robot, please let us know by sending me a short note on E-Mail at ka3hdo@amsat.org.

Submitted by Frank H. Bauer for the SAREX Working Group

/EX

Date: 26 Jun 1993 03:17:11 -0400
From: digex.com!digex.net!not-for-mail@uunet.uu.net
Subject: SCOM Repeater Controller Spurious Reset Help
To: info-hams@ucsd.edu

millar@mervax.sanders.lockheed.com (Jeffrey R. Millar) writes:

>My repeater with an SCOM 5K controller has developed a problem with resets.
>Several times a day (or even more often), The controller sends "? RES"
>
>If anyone out there can help with more specific suggestion where to look, we
>would appreciate it.

- junk from the power supply; look at it with a scope;
- RF spray into controller or power supply, check shielding and ground bonding, check for failed tantalum bypass capacitors;
- a watchdog timer which is flaky; our WB3ESS controller upgraded the watchdog from a 4098/4538 CMOS monostable to a top-notch MAX699 made for the job.

It's almost always something simple and belatedly obvious, though.
Likely a loose screw which provides a ground to a portion of circuit board somewhere. Something which makes you feel a little silly when you find it. :)

--

bote@access.digex.net (John Boteler)
WARNING: You are subject to pre-emption!

Date: Fri, 25 Jun 1993 20:59:03 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!apple!goofy.apple.com!
michael.apple.com!ems@network.UCSD.EDU
To: info-hams@ucsd.edu

References <1993Jun22.153315.4826@n5ial.mythical.com>,
<1993Jun23.133431.3158@porthos.cc.bellcore.com>,
<1993Jun24.144633.8764@n5ial.mythical.com>/
Subject : Re: [ANS] Wanted: Simple,Cheap,2m antenna project

In article <1993Jun24.144633.8764@n5ial.mythical.com> jim@n5ial.mythical.com (Jim Graham) writes:

>In article <1993Jun23.133431.3158@porthos.cc.bellcore.com>
>whs70@dancer.cc.bellcore.com (sohl,william h) writes:
>>In article <1993Jun22.153315.4826@n5ial.mythical.com>

>>jim@n5ial.mythical.com (Jim Graham) writes:

>

>>>Above the PVC pipe...I know PVC is a Bad Thing at HF, but what about VHF?

>>>Can you really get good results with it there? Or would a wooden dowel

>>>(see my post from yesterday on this) be a better thing to use?

>

>>1. Why do you say PVC is bad at HF? It is certainly a nonconductor.

>> The use of PVC may have HF limits because of flexibility in long

>> large HF beams, but I'm unaware of any other PVC shortcomings.

>

>From what I've heard (many times, from different people), PVC is not an

>effective insulator at HF frequencies, as was originally thought. I just

>did a quick (*VERY* quick...as in, looked in the index) check in the

>Antenna Book, and didn't find anything, but this doesn't say much. :-)

>Later, when I get more time, I'll try to find more info.

I just use insulate wire when winding/mounting an antenna on PVC.

At VHF PVC isn't very good since it starts to absorb signal... but
at HF it should not be an issue.

--

E. Michael Smith ems@apple.COM

'Whatever you can do, or dream you can, begin it. Boldness has
genius, power and magic in it.' - Goethe

I am not responsible nor is anyone else. Everything is disclaimed.

Date: 25 Jun 1993 22:28:00 GMT

From: dog.ee.lbl.gov!overload.lbl.gov!agate!tunitas!marchant@network.UCSD.EDU

To: info-hams@ucsd.edu

References <9306231700.AA16233@netcom2.netcom.com>, <C93sDy.3wx@iat.holonet.net>,
<1993Jun25.173814.16640@brtph560.bnr.ca>1

Subject : Re: STS-57 Update/President's Crew Conference

I was the coordinator for the Lawrence Hall of Science SAREX contact that was
almost pre-empted by Pres. Clinton. I haven't talked to anybody on the scheduling
teams but I don't think that Clinton realised that he might stomp on our contact.
As it worked out, we hung tight and he finished his chat with the crew and we
had about five minutes to the start of our Hawaii ground station pass. I would
guess that Clinton had a free half hour in his schedule at that point, his
schedule

people asked the NASA schedule people who said "Sure, we have an optional

The Malcolm X Intermediate school contact that was to immediately follow ours had problems. The ground stations in California, Texas, and Florida couldn't acquire a signal from Endeavour. I feel really sorry for those kids 8(They sat through the possible cancellation, through the LHS contact, and then had to watch ground station contacts disappear before their very eyes. Fortunately it looks like they can get rescheduled soon.

— —

From: mentor.cc.purdue.edu!noose.ecn.purdue.edu!en.ecn.purdue.edu!n9ljx@purdue.edu
To: info-hams@ucsd.edu

In article <FOR0ZC0.93Jun25145337@dante.nmsu.edu> forozco@nmsu.edu (OR0ZC0) writes:

 \succ \succ

Thanks. I found WR9R on 155.212.2.2 ftp site. Actually what I was looking for was NA by K8CC, and I have been told it is commercial software. I was also

informed that CT now does Field Day, and I just verified with other memebrs
of our club that we have a current version, so my panic was for nought.
Thanks for all the quick response, and thank you Jim Reisert for the info on
CT and NA.

see you tomorrow!

--scott

--

Scott Stambaugh - N9LJX	internet: n9ljx@ecn.purdue.edu
Operations Supervisor, ADPC	phone: 317 494 7946
Purdue University	
West Lafayette, IN 47907-1061	

End of Info-Hams Digest V93 #782
